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CENTRAL FAX CENTER
APR 08 2008

Amendments to the Claims

Please amend Claims 1, 4, 10, 14, 18, 23 and 24. Please cancel Claim 5. The Claim listing below will replace all prior versions of the claims in the application.

Claim Listing

1. (Currently Amended) A method comprising:

receiving an indication on a network component that one or more packets have been received from a network;

the network component notifying a TCP-A (transport control protocol – accelerated) driver that the one or more packets have arrived;

a TCP-A driver performing TCP stack processing by parsing a header in at least one of the one or more packets to determine the protocol context associated with a current connection, and performing TCP protocol compliance for the at least one of the one or more packets; and

the TCP-A driver performing one or more operations that result in a data movement module placing one or more corresponding payloads of the at least one of the one or more packets into a read buffer.
2. (Original) The method of claim 1, additionally comprising, in response to receiving an indication on a network component that one or more packets have been received from the network, the network component:

splitting each of the one or more packets into a header and a payload; and

posting each of the header and payload to one or more post buffers.

3. (Original) The method of claim 2, wherein the TCP-A driver performs packet processing by processing each of the headers, the method additionally comprising fetching a next header of the one or more headers prior to completing the processing of the current header.
4. (Currently Amended) The method of claim 1, wherein said TCP-A driver performing one or more operations that result in a data movement module placing one or more corresponding payloads of the at least one of the one or more packets into a read buffer comprises sending a request to a data movement module driver to write the one or more corresponding payloads to the read buffer.
5. (Canceled).
6. (Original) The method of claim 1, wherein the data movement module comprises a DMA (direct memory access) engine.
7. (Original) The method of claim 6, wherein the DMA engine resides on a chipset.
8. (Original) The method of claim 6, wherein the DMA engine resides on a host processor as a support module.
9. (Original) The method of claim 1, additionally comprising:

receiving a request on an operating system to transmit data over the network;

the operating system notifying the TCP-A driver that there is data to be transmitted;

the TCP-A driver performing one or more operations that result in the data being transmitted to the network component;

in response to receiving the data, the network component creating one or more packets for transmission by packetizing the data; and

the network component transmitting the one or more packets over the network.

10. (Currently Amended) An apparatus comprising:

a network component capable of:

receiving an indication on a network component that one or more packets have been received from a network; and

notifying a TCP-A (transport control protocol – accelerated) driver that the one or more packets have arrived; and

a TCP-A driver capable of:

performing packet processing by parsing a header in at least one of the one or more packets to determine the protocol context associated with a current connection, and performing TCP protocol compliance for the at least one of the one or more packets; and

the TCP-A driver performing one or more operations that result in a data movement module placing one or more corresponding payloads of the at least one of the one or more packets into a read buffer.

11. (Original) The apparatus of claim 10, additionally comprising an operating system capable of:

receiving a request to transmit data over the network; and

notifying the TCP-A driver that data is ready to be transmitted;

wherein:

the TCP-A driver is capable of performing one or more operations that result in the data being transmitted to the network component; and

the network component is capable of:

creating one or more packets for transmission by packetizing the data in response to receiving the data; and

transmitting the one or more packets over the network.

12. (Original) The apparatus of claim 10, wherein in response to receiving an indication on a network component that one or more packets have been received from the network, the network component is additionally capable of:

splitting each of the one or more packets into a header and a payload; and

posting each of the header and payload to one or more post buffers.
13. (Original) The apparatus of claim 12, wherein the TCP-A driver performs packet processing by processing each of the headers, and the TCP-A driver is additionally capable of fetching a next header of the one or more headers prior to completing the processing of the current header.
14. (Currently Amended) A system comprising:

a chipset having a DMA (direct memory access) engine, the chipset communicatively coupled to a TCP-A (Transport Control Protocol – Accelerated) driver of a processor and to a network component;

the network component capable of:

receiving an indication that one or more packets have been received from a network; and

notifying the TCP-A (transport control protocol – accelerated) driver that the one or more packets have arrived; and

the TCP-A driver of the processor capable of:

performing packet processing by parsing a header in at least one of the one or more packets to determine the protocol context associated with a current connection, and performing TCP protocol compliance for the at least one of the one or more packets; and

performing one or more operations that result in a data movement module placing one or more corresponding payloads of the at least one of the one or more packets into a read buffer.

15. (Original) The system of claim 14, additionally comprising an operating system of the processor capable of:

receiving a request to transmit data over the network; and

notifying the TCP-A driver that data is ready to be transmitted;

wherein:

the TCP-A driver is capable of performing one or more operations that result in the data being transmitted to a network component; and

the network component is capable of:

creating one or more packets for transmission by packetizing the data in response to receiving the data; and

transmitting the one or more packets over the network.

16. (Original) The system of claim 14, wherein in response to receiving an indication on a network component that one or more packets have been received from the network, the network component is additionally capable of:

splitting each of the one or more packets into a header and a payload; and

posting each of the header and payload to one or more post buffers.

17. (Original) The system of claim 16, wherein the TCP-A driver performs packet processing by processing each of the headers, and the TCP-A driver is additionally capable of fetching a next header of the one or more headers prior to completing the processing of the current header.
18. (Currently Amended) A machine-readable medium having stored thereon instructions, the instructions when executed by a machine, result in the following: receiving an indication on a network component that one or more packets have been received from a network;

the network component notifying a TCP-A (transport control protocol – accelerated) driver that the one or more packets have arrived;

a TCP-A driver performing packet processing by parsing a header in at least one of the one or more packets to determine the protocol context associated with a current connection, and performing TCP protocol compliance for the at least one of the one or more packets; and

the TCP-A driver performing one or more operations that result in a data movement module placing one or more corresponding payloads of the at least one of the one or more packets into a read buffer.

19. (Original) The machine-readable medium of claim 18, wherein in response to receiving an indication on a network component that one or more packets have been received from the network, the instructions additionally result in:

splitting each of the one or more packets into a header and a payload; and

posting each of the header and payload to one or more post buffers.

20. (Original) The machine-readable medium of claim 19, wherein the TCP-A driver performs packet processing by processing each of the headers, the instructions additionally result in fetching a next header of the one or more headers prior to

- completing the processing of the current header.
21. (Original) The machine-readable medium of claim 18, wherein the instructions that result in performing one or more operations that result in a data movement module placing one or more corresponding payloads of the at least one of the one or more packets into a read buffer additionally result in sending a request to a data movement module driver to write the one or more corresponding payloads to the read buffer.
 22. (Original) The machine-readable medium of claim 18, wherein the instructions that result in said TCP-A driver performing one or more operations that result in a data movement module placing one or more corresponding payloads of the at least one of the one or more packets into a read buffer additionally result in programming the data movement module to write the one or more corresponding payloads to the read buffer.
 23. (Original) The machine-readable medium of claim 18, wherein the data movement module comprises a DMA (direct memory access) engine.
 24. (Currently Amended) The machine-readable medium of claim ~~24~~ 23, wherein the DMA engine resides on a chipset.

25. (Currently Amended) The machine-readable medium of claim ~~24~~23, wherein the DMA engine resides on a host processor as a support module.
26. (Original) The machine-readable medium of claim 18, the instructions additionally result in:
- receiving a request on an operating system to transmit data over the network;
- the operating system notifying the TCP-A driver that there is data to be transmitted;
- the TCP-A driver performing one or more operations that result in the data being transmitted to the network component;
- in response to receiving the data, the network component creating one or more packets for transmission by packetizing the data; and
- the network component transmitting the one or more packets over the network